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United States Department of Agriculture
Forest Service

FOREST PEST MANAGEMENT

Technology Update

Southern Region, USDA Forest Service, 1720 Peachtree Rd., N.W., Atlanta, Ga. 30367

81-12-123

Southern Pine Beetle Fact Sheet
Number 40

AR HAZARD -- A Computer Program

Purpose

This computer program has been prepared to help foresters estimate relative susceptibility of Arkansas pine stands to SPB attack.

Description

This hazard-rating system is based upon analysis of tree, site, and stand characteristics of pine stands in southern Arkansas. The system is easily applied and uses readily obtained inventory data.

Inputs

1. Total stand basal area (square feet per acre)
2. Hardwood basal area (square feet per acre)
3. Stand age (years)
4. Radial growth in last 10 years (inches to nearest tenth).

Outputs

Numerical hazard-rating score

Accessibility

Hazard estimates may be developed by entering the above input data into the following equation:

HAZARD SCORE = 64.3 (radial growth) + 3.3 (stand age) + .93 (hardwood BA/A) - 1.5 (total BA/A)

Stand susceptibility can then be determined as follows:

Score	Hazard Class
>101	Low
1-100	Moderate
<1	High

AR HAZARD may be used as described above or is available in a computerized format via telephone connection. You may also send a blank diskette to: USDA Forest Service, Forest Pest Management, Wesley A. Nettleton, Entomologist, 2500 Shreveport Highway, Asheville, LA 71360. The return diskette will also include four other programs: Mississippi Hazard B, Piedmont Risk, Mountain Risk, and Texas Hazard.

Reference

Ku, T.T.; Sweeney, J.M.; Shelburne, V. B. Hazard rating of stands for southern pine beetle attack in Arkansas. In: Hedden, R.L.; Barras, S. J.; Coster, J.E., coords. Hazard rating systems in forest insect pest management: symposium proceedings; 1980 July; Athens, GA. General Technical Report WO-27. Washington, D.C. U.S. Department of Agriculture, Forest Service; 1981. p.145 -148.

Additional Information

Contact Wesley A. Nettleton at the address shown for him above.

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